

In The Specification

(for the paragraph numbers refer to Patent Application Publication US2005/0209516 A1)

Please correct typographical errors by replacing the following paragraphs:

[0058] **Fig. 7** illustrates the internal structure of oximetry sensor **67** where light transmission assembly **63** is disconnected from probe **62**. This ability to disconnect may be important for practical use as the entire light transmission assembly **63** may be made interchangeable and even disposable. The probe **62** internal components are protected from the environment by encapsulation **78** and data are transmitted via cable **80**. However, data may be transmitted by other means, for example via radio or optical communication links. Internal circuit board **68** supports holder **76**, light coupler **72**, two LEDs **71** and **77**, light detector **73** and heart rate indicating light **70**. Heater **69** may be added to warm up the interior of probe **62** and portion of ear plug **64** to temperatures in the range of 37-40 °C which would aid in increasing blood ~~perusing~~ perfusion in the ear canal and, as a result, enhance a magnitude of the detected signal. Positions of the light emitting and detecting components may be reversed if so desired for a particular design. That is, ~~an~~ the "illuminator" may contain a detector and the ear plug may be coupled with the emitters. This arrangement will not change the general operation of the device.

[0060] It should be noted that the purpose of illuminator **65**, light transmissive ear plug **64** and shield **66** is to separate the transmissive and receiving beams of light. Otherwise, the transmissive light would spuriously couple directly to light detector **73**, thus bypassing biological tissue **103**. There are many possible ways of separating the transmitting and receiving beams of light, but all involve the use of a light transparent ear plug. As an illustration of another possible design, ~~Fig. 14~~ Fig. 13 shows dual ear plug **104**, consisting of two light transmitting sections - first section **108** and second section **110**. These sections are separated by light stopper **109** that is not transparent for the used wavelengths of light. First and second LEDs (**71** and **77**) are coupled to first section **108**, while detector **73** is coupled to second section **110** by means of the intermediate light conducting rod **106**. Two LEDs (**71** and **77**) produce light in form of transmitting beam **112** that propagates toward tissue **103** and modulated by oxyhemoglobin. The modulated light in form of receiving light beam **111** passes toward detector **73**. The separation of the light beams are performed by light stopper **109** and jacket **105** which is also opaque. Naturally, in this case there is no need for a separate illuminator as both transmission and reception of light is performed by different sections of the ear plug.